



AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE 1 OF 16 PAGES	
2. AMENDMENT/MODIFICATION NO. 002		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY U. S. Department of Energy, National Energy Technology Laboratory P.O. Box 880, Attn: Kelly McDonald 3610 Collins Ferry Road Morgantown, WV 26507-0880		7. ADMINISTERED BY (If other than Item 6)	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and ZIP Code) To Be Determined		<input checked="" type="checkbox"/> 9A. AMENDMENT OF SOLICITATION NO. DE-PS26-00NT40779		<input checked="" type="checkbox"/> 9B. DATED (See Item 11) May 12, 2000	
CODE		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO.	
				10B. DATED (See Item 13)	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

<input checked="" type="checkbox"/>	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☐ is required to sign this document and return copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this amendment is to amend the solicitation as contained on the following pages and provide answers to questions submitted regarding the subject solicitation.

Offerors must acknowledge receipt of the amendment (Block 15A - 15C) prior to the hour and due date specified in the solicitation or as amended by acknowledging receipt of this amendment on each copy of the offer submitted. The proposal due date is still June 27, 2000.

See continuation pages for complete description.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Raymond R. Jarr Contracting Officer Acquisition and Assistance Division	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY Original Signed by (Signature of Contracting Officer)	06-12-00

The purpose of this amendment is to amend the solicitation to incorporate the following clauses; and to respond to questions received by the Government. Accordingly, the solicitation is amended as follows:

1. (a) Section II, SPECIAL TERMS AND CONDITIONS, is hereby amended to include the following clause:

“2.28 PERFORMANCE OF WORK IN THE UNITED STATES

The Recipient agrees that at least 75 percent of the direct labor cost for this award (including any subcontractor labor) will be incurred in the United States.”

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- (b) Section I, Clause 1.1 EXECUTIVE SUMMARY LETTER - PROGRAM SOLICITATION (FEB 2000), and Section VI, Clause 6.3 VOLUME 1 -- BUSINESS AND FINANCIAL APPLICATION PREPARATION INSTRUCTIONS (DEC 1999), are hereby amended to include the following. (This paragraph is incorporated as Paragraph 12 to Clause 6.3.)

“Performance of Work in the United States

As a condition of award under this solicitation, applicants must agree that at least 75% of the direct labor cost for the project (including subcontractor labor) will be incurred in the United States unless the applicant can demonstrate to the satisfaction of DOE that the United States economic interest will be better served through a greater percentage of the work performed outside the United States. For example, an applicant may provide evidence that expertise to develop a technology exists only outside the United States, but that ultimate commercialization of the technology will result in substantial benefits to the United States such as increased employment, increased exports of U.S.-manufactured products, etc..”

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- (c) Section VII, EVALUATION AND SELECTION, is hereby amended to include the following:

“7.11 WORK PERFORMED IN THE U.S. EVALUATION CRITERIA

The requirement to have the performance of work in the United States will not be point scored, but will be evaluated to determine if 75 percent of the applicant’s direct labor cost for the project (including subcontractor labor) will be incurred in the United States.”

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2. The following clause is hereby added as Clause 3.13 to the model cooperative agreement under Section III, INTELLECTUAL PROPERTY PROVISIONS. This particular clause is applicable to only large businesses who request and receive a patent waiver from the Department.

“3.13 PATENT RIGHTS—WAIVER (JUL 1996)

(a) Definitions.

Background patent means a domestic patent covering an invention or discovery which is not a Subject Invention and which is owned or controlled by the Contractor at any time through the completion of this contract:

- (i) Which the Contractor, but not the Government, has the right to license to others without obligation to pay royalties thereon, and
- (ii) Infringement of which cannot reasonably be avoided upon the practice of any specific process, method, machine, manufacture or composition of matter (including relatively minor modifications thereof) which is a subject of the research, development, or demonstration work performed under this contract.

Contract means any contract, grant, agreement, understanding, or other arrangement, which includes research, development, or demonstration work, and includes any assignment or substitution of parties.

DOE patent waiver regulations means the Department of Energy patent waiver regulations at 10 CFR part 784.

Invention means any invention or discovery which is or may be patentable or otherwise protectable under title 35 of the United States Code or any novel variety of plant that is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321 *et seq.*).

Made when use in relation to any invention means the conception or first actual reduction to practice of such invention.

Nonprofit organization means a domestic university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under Section 501(a) of the Internal Revenue Code (26 U.S.C 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

Patent Counsel means the Department of Energy Patent Counsel assisting the procuring activity.

Practical application means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is

being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

Secretary means the Secretary of Energy.

Small business firm means a small business concern as defined at section 2 of Pub. L. 85-536 (15 U.S.C. 532) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in Government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.

Subject invention means any invention of the Contractor conceived or first actually reduced to practice in the course of or under this contract; *provided*, that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) must also occur during the period of contract performance.

(b) Allocation of principal rights.

Whereas DOE has granted a waiver of rights to subject inventions to the Contractor, the Contractor may elect to retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. §§ 202 and 203. With respect to any subject invention in which the Contractor elects to retain title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(c) Invention, disclosure, election of title, and filing of patent applications by Contractor.

- (1) The Contractor shall disclose each subject invention to the Patent Counsel within 6 months after conception or first actual reduction to practice, whichever occurs first in the course of or under this contract, but in any event, prior to any sale, public use, or public disclosure of such invention known to the Contractor. The disclosure to the Patent Counsel shall be in the form of a written report and shall identify the contract under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, operation, and physical, chemical, biological, or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale, or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the Patent Counsel, the Contractor shall promptly notify the Patent Counsel of the

acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Contractor.

- (2) The Contractor shall elect in writing whether or not to retain title to any such invention by notifying the Patent Counsel at the time of disclosure or within 8 months of disclosure, as to those countries (including the United States) in which the Contractor will retain title; *provided*, that in any case where publication, on sale, or public use has initiated the 1-year statutory period wherein valid patent protection can still be obtained in the United States, the period of election of title may be shortened by DOE to a date that is no more than 60 days prior to the end of the statutory period. The Contractor shall notify the Patent Counsel as to those countries (including the United States) in which the Contractor will retain title not later than 60 days prior to the end of the statutory period.
 - (3) The Contractor shall file its initial United States patent application on an elected invention within 1 year after election but not later than at least 60 days prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Contractor shall file patent applications in additional countries (including the European Patent Office and under the Patent Cooperation Treaty) within either 10 months of the corresponding initial patent application or 6 months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where foreign filing has been prohibited by a Secrecy Order.
 - (4) Requests for extension of the time for disclosure to the Patent Counsel, election, and filing may, at the discretion of DOE, be granted, and will normally be granted unless the Patent Counsel has reason to believe that a particular extension would prejudice the Government's interest.
- (d) *Conditions when the Government may obtain title notwithstanding an existing waiver.*

The Contractor shall convey to DOE, upon written request, title to any subject invention—

- (1) If the Contractor elects not to retain title to a subject invention;
- (2) If the Contractor fails to disclose or elect the subject invention within the times specified in paragraph (c) above (provided that DOE may only request title within 60 days after learning of the Contractor's failure to report or elect within the specified times);

- (3) In those countries in which the Contractor fails to file patent applications within the times specified in paragraph (c) above; *provided*, however, that if the Contractor has filed a patent application in a country after the times specified in paragraph (c) above, but prior to its receipt of the written request of DOE, the Contractor shall continue to retain title in that country;
 - (4) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention; or
 - (5) If the waiver authorizing the use of this clause is terminated as provided in paragraph (p) of this clause.
- (e) *Minimum rights to Contractor when the Government retains title.*
- (1) The Contractor shall retain a nonexclusive, royalty-free license throughout the world in each subject invention to which the Government obtains title under paragraph (d) of this clause except if the Contractor fails to disclose the subject invention within the times specified in paragraph (c) above. The Contractor's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Contractor is a part and includes the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of DOE except when transferred to the successor of that part of the Contractor's business to which the invention pertains.
 - (2) The Contractor's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions in 37 CFR part 404 and DOE licensing regulations. This license shall not be revoked in that field of use or the geographical areas in which the Contractor has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Contractor, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.
 - (3) Before revocation or modification of the license, DOE shall furnish the Contractor a written notice of its intention to revoke or modify the

license, and the Contractor shall be allowed 30 days (or such other time as may be authorized by DOE for good cause shown by the Contractor) after the notice to show cause why the license should not be revoked or modified. The Contractor has the right to appeal, in accordance with applicable agency licensing regulations and 37 CFR part 404 concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of its license.

(f) Contractor action to protect the Government's interest.

- (1) The Contractor agrees to execute or to have executed and promptly deliver to DOE all instruments necessary to:
 - (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the Contractor elects to retain title, and
 - (ii) convey title to the Federal agency when requested under paragraph (d) above and subparagraph (n)(2) below, and to enable the Government to obtain patent protection throughout the world in that subject invention.
- (2) The Contractor agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Contractor each subject invention made under contract in order that the Contractor can comply with the disclosure provisions of paragraph (c) above, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by subparagraph (c)(1) above. The Contractor shall instruct such employees through employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.
- (3) The Contractor shall notify DOE of any decision not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office.
- (4) The Contractor agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a

subject invention, the following statement: "This invention was made with Government support under (identify the contract) awarded by DOE. The Government has certain rights in this invention."

- (5) The Contractor shall establish and maintain active and effective procedures to assure that subject inventions are promptly identified and disclosed to Contractor personnel responsible for patent matters within 6 months of conception and/or first actual reduction to practice, whichever occurs first in the course of or under this contract. These procedures shall include the maintenance of laboratory notebooks or equivalent records and other records as are reasonably necessary to document the conception and/or the first actual reduction to practice of subject inventions, and records that show that the procedures for identifying and disclosing the inventions are followed. Upon request, the Contractor shall furnish the Patent Counsel a description of such procedures for evaluation and for determination as to their effectiveness.
- (6) The Contractor agrees, when licensing a subject invention, to arrange to avoid royalty charges on acquisitions involving Government funds, including funds derived through Military Assistance Program of the Government or otherwise derived through the Government; to refund any amounts received as royalty charges on the subject invention in acquisitions for, or on behalf of, the Government; and to provide for such refund in any instrument transferring rights in the invention to any party.
- (7) The Contractor shall furnish the Contracting Officer the following:
 - (i) Interim reports every 12 months (or such longer period as may be specified by the Patent Counsel) from the date of the contract, listing subject inventions during that period and certifying that all subject inventions have been disclosed or that there are no such inventions.
 - (ii) A final report, within 3 months after completion of the contracted work, listing all subject inventions or certifying that there were no such inventions, and listing all subcontracts at any tier containing a patent rights clause or certifying that there were no such subcontracts.
- (8) The Contractor shall promptly notify the Patent Counsel in writing upon the award of any subcontract at any tier containing a patent rights clause by identifying the subcontractor, the applicable patent rights clause, the work to be performed under the subcontract, and the dates of award and estimated completion. Upon request of the Patent Counsel, the

Contractor shall furnish a copy of such subcontract, and no more frequently than annually, a listing of the subcontracts that have been awarded.

- (9) In the event of a refusal by a perspective subcontractor to accept one of the clauses in subparagraph (g)(1) or (2) below, the Contractor (i) shall promptly submit a written notice to the Contracting Officer setting forth the subcontractor's reasons for such refusal and other pertinent information that may expedite disposition of the matter and (ii) shall not proceed with such subcontracting without the written authorization of the Contracting Officer.
- (10) The Contractor shall provide, upon request, the filing date, serial number and title, a copy of the patent application (including an English-language version if filed in a language other than English), and patent number and issue date for any subject invention for which the Contractor has retained title.
- (11) Upon request, the Contractor shall furnish the Government an irrevocable power to inspect and make copies of the patent application file.

(g) Subcontracts.

- (1) Unless otherwise directed by the Contracting Officer, the Contractor shall include the clause at 48 CFR 952.227-11, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental, or research work to be performed by a small business firm or nonprofit organization, except where the work of the subcontract is subject to an Exceptional Circumstances Determination by DOE. In all other subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work, the Contractor shall include the patent rights clause at 48 CFR 952.227-13 (suitably modified to identify the parties).
- (2) The Contractor shall not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.
- (3) In the case of subcontractors at any tier, the Department, the subcontractor, and Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and the Department with respect to those matters covered by this clause.

(h) *Reporting utilization of subject inventions.*

The Contractor agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceedings undertaken by the agency in accordance with paragraph (j) of this clause. To the extent data or information supplied under this paragraph is considered by the Contractor, its licensee or assignee to be privileged and confidential and is so marked, DOE agrees that, to the extent permitted by law, it shall not disclose such information to persons outside the Government.

(i) *Preference for United States Industry.*

Notwithstanding any other provision of this clause, the Contractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any products embodying the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Contractor or his assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) *March-in rights.*

The Contractor agrees that with respect to any subject invention in which it has acquired title, DOE has the right in accordance with the procedures in 48 CFR 27.304-1(g) to require the Contractor, an assignee, or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Contractor, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that—

- (1) Such action is necessary because the Contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use:

- (2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Contractor, assignee, or their licensees;
 - (3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Contractor, assignee, or licensees; or
 - (4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.
- (k) *Background Patents.*
- (1) The contractor agrees:
 - (i) to grant to the Government a royalty-free, nonexclusive license under any Background Patent for purposes of practicing a subject of this contract by or for the Government in research, development, and demonstration work only.
 - (ii) That, upon written application by DOE, it will grant to responsible parties for purposes of practicing a subject of this contract, nonexclusive licenses under any Background Patent on terms that are reasonable under the circumstances. If, however, the Contractor believes that exclusive or partially exclusive rights are necessary to achieve expeditious commercial development or utilization, then a request may be made to DOE for DOE approval of such licensing by the Contractor.
 - (2) Notwithstanding paragraph (k)(1)(ii), the Contractor shall not be obligated to license any Background Patent if the Contractor demonstrates to the satisfaction of the Secretary or his designee that:
 - (i) a competitive alternative to the subject matter covered by said Background Patent is commercially available from one or more other sources; or
 - (ii) the Contractor or its licensees are supplying the subject matter covered by said Background Patent in sufficient quantity and at reasonable prices to satisfy market needs, or have taken effective steps or within a reasonable time are expected to take effective steps to so supply the subject matter.

(l) *Communications.*

All reports and notifications required by this clause shall be submitted to the Patent Counsel unless otherwise instructed.

(m) *Other inventions.*

Nothing contained in this clause shall be deemed to grant to the Government any rights with respect to any invention other than a subject invention, except with respect to Background Patents, above.

(n) *Examination of records relating to inventions.*

(1) The Contracting Officer or any authorized representative shall, until 3 years after final payment under this contract, have the right to examine any books (including laboratory notebooks), records, and documents of the Contractor relating to the conception or first reduction to practice of inventions in the same field of technology as the work under this contract to determine whether—

(i) Any such inventions are subject inventions;

(ii) The Contractor has established and maintains the procedures required by subparagraphs (f)(2) and (f)(3) of this clause; and

(iii) The Contractor and its inventors have complied with the procedures.

(2) If the Contracting Officer determines that an inventor has not disclosed a subject invention to the Contractor in accordance with the procedures required by subparagraph (f)(5) of this clause, the Contracting Officer may, within 60 days after the determination, request title in accordance with subparagraphs (d)(2) and (d)(3) of this clause. However, if the Contractor establishes that the failure to disclose did not result from the Contractor's fault or negligence, the Contracting Officer shall not request title.

(3) If the Contracting Officer learns of an unreported Contractor invention which the Contracting Officer believes may be a subject invention, the Contractor may be required to disclose the invention to the agency for a determination of ownership rights.

(4) Any examination of records under this paragraph shall be conducted in such a manner as to protect the confidentiality of the information involved.

- (o) *Withholding of payment (this paragraph does not apply to subcontracts or grants).*
- (1) Any time before final payment under this contract, the Contracting Officer may, in the Government's interest, withhold payment until a reserve not exceeding \$50,000 or 5 percent of the amount of the contract, whichever is less, shall have been set aside if, in the Contracting Officer's opinion, the Contractor fails to—
 - (i) Establish, maintain, and follow effective procedures for identifying and disclosing subject inventions pursuant to subparagraph (f)(5) above;
 - (ii) Disclose any subject invention pursuant to subparagraph (c)(1) above;
 - (iii) Deliver acceptable interim reports pursuant to subdivision (f)(7)(i) above;
 - (iv) Provide the information regarding subcontracts pursuant to subparagraph (f)(8) of this clause; or
 - (v) Convey to the Government, using a DOE-approved form, the title and/or rights of the Government in each subject invention as required by this clause.
 - (2) Such reserve or balance shall be withheld until the Contracting Officer has determined that the Contractor has rectified whatever deficiencies exist and has delivered all reports, disclosures, and other information required by this clause.
 - (3) Final payment under this contract shall not be made before the Contractor delivers to the Patent Counsel all disclosures of subject inventions required by paragraph (c)(1) of this clause, an acceptable final report pursuant to paragraph (f)(7)(ii) of this clause, and all past due confirmatory instruments, and the Patent Counsel has issued a patent clearance certification to the Contracting Officer.
 - (4) The Contracting Officer may decrease or increase the sums withheld up to the maximum authorized above. No amount shall be withheld under this paragraph while the amount specified by this paragraph is being withheld under other provisions of the contract. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

(p) *Waiver Terminations.*

Any waiver granted to the Contractor authorizing the use of this clause (including any retention of rights pursuant thereto by the Contractor under paragraph (b) of this clause) may be terminated at the discretion of the Secretary or his designee in whole or in part, if the request for waiver by the Contractor is found to contain false material statements or nondisclosure of material facts, and such were specifically relied upon by DOE in reaching the waiver determination. Prior to any such termination, the Contractor will be given written notice stating the extent of such proposed termination and the reasons therefor, and a period of 30 days, or such longer period as the Secretary or his designee shall determine for good cause shown in writing, to show cause why the waiver of rights should not be so terminated. Any waiver termination shall be subject to the Contractor's minimum license as provided in paragraph (e) of this clause.

(q) *Atomic Energy.*

No claim for pecuniary award or compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be asserted by the Contractor or its employees with respect to any invention or discovery made or conceived in the course of or under this contract.

(r) *Publication.*

It is recognized that during the course of work under this contract, the Contractor or its employees may from time to time desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this contract. In order that public disclosure of such information will not adversely affect the patent interests of DOE or the Contractor, approval for release of publication shall be secured from Patent Counsel prior to any such release or publication. In appropriate circumstances, and after consultation with the Contractor, Patent Counsel may waive the right of prepublication review.

(s) *Forfeiture of rights in unreported subject inventions.*

(1) The Contractor shall forfeit and assign to the Government, at the request of the Secretary of Energy or designee, all rights in any subject invention which the Contractor fails to report to Patent Counsel within 6 months after the time the Contractor:

(i) Files or causes to be filed a United States or foreign patent application thereon; or

- (ii) Submits the final report required by paragraph (e)(2)(ii) of this clause, whichever is later.
 - (2) However, the Contractor shall not forfeit rights in a subject invention if, within the time specified in paragraph (m)(1) of this clause, the Contractor:
 - (i) Prepares a written decision based upon a review of the record that the invention was neither conceived nor first actually reduced to practice in the course of or under the contract and delivers the decision to Patent Counsel, with a copy to the Contracting Officer; or
 - (ii) Contending that the subject invention is not a subject invention, the Contractor nevertheless discloses the subject invention and all facts pertinent to this contention to the Patent Counsel, with a copy to the Contracting Officer, or
 - (iii) Establishes that the failure to disclose did not result from the Contractor's fault or negligence.
 - (3) Pending written assignment of the patent application and patents on a subject invention determined by the Contracting Officer to be forfeited (such determination to be a Final Decision under the Disputes clause of this contract), the Contractor shall be deemed to hold the invention and the patent applications and patents pertaining thereto in trust for the Government. The forfeiture provision of this paragraph shall be in addition to and shall not supersede any other rights and remedies which the Government may have with respect to subject inventions.
- (t) *U.S. Competitiveness.*

The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States, unless the Contractor can show to the satisfaction of DOE that it is not commercially feasible to do so. In the event DOE agrees to foreign manufacture, the Contractor will repay the United States all monies which have been paid by DOE under this cooperative agreement, together with appropriate interest on such monies. Additionally, failure to substantially manufacture in the United States, will require the Contractor to either license the foreground Intellectual Property, on a royalty-free basis, to any United States-owned company or other responsible applicant identified by the DOE who demonstrates an interest in and ability to commercialize the technology and who agrees to substantially manufacture in the United States, or the Contractor will return title to the foreground Intellectual Property to the DOE or its successor(s). The Contractor also will license its background inventions at reasonable royalty rates to

those entities given licenses to foreground Intellectual Property to the extent that the Contractor can do so without (1) violating any law or regulation, or (2) breaching an existing contractual obligation.

The Contractor shall demonstrate to the satisfaction of the DOE that it is complying with the requirement for substantial U.S. manufacture by submitting, on request, periodic reports no more frequently than annually, on the utilization of subject inventions as required under paragraph (h) of this clause. This clause and the responsibilities of the Contractor shall survive for as long as there is valid patent protection in the United States for at least one Subject Invention. The Contractor further agrees to make the above condition binding on any assignee or licensee or any entity otherwise acquiring rights to any waived invention, including subsequent assignees or licensees.

Should the Contractor or other such entity receiving rights in any waived invention undergo a change in ownership amounting to a controlling interest during the time that there is valid patent protection in the United States for at least one Subject Invention, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by DOE.

3. Section V, Clause 5.37 952.227-84 NOTICE OF RIGHT TO REQUEST PATENT WAIVER (FEB 1998), is hereby amended to include the following at the end of the clause:

“...If an offeror requests a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of the contract that may be awarded as a result of this solicitation, the patent rights - waiver clause in the draft agreement of this solicitation will apply. Please pay special attention to paragraph (t) titled “U.S. Competitiveness.”

4. Attachment 1 to this Amendment provides answers to questions submitted regarding the subject solicitation.
5. Except as amended herein, all other terms and conditions of the solicitation remain unchanged.

End of Amendment 002

**Questions and Answers
in Response to
Program Solicitation DE-PS26-00NT40779
Hybrid Power Systems**

The following questions were submitted regarding the Department of Energy's (DOE's) Program Solicitation DE-PS26-00NT40779, Hybrid Power Systems. **Q** represents the questions posed, and **R** represents the DOE's response.

- Q1** Does a PEM fuel cell system running at 160-180° C qualify for the "high temperature fuel cell" component as called for in the "hybrid power systems" solicitation?
- R1** "High-temperature fuel cell" was intended to include molten carbonate and solid oxide fuel cells. This would put the operating temperature of the fuel cell above 550° C.
- Q2** The funding level on page 2 of the Executive Summary Letter states "a total estimated cost from \$5 million to \$15 million per award." Is this amount to conduct: (1) Phase I and Phase II, (2) Phase II and Phase III, or (3) for all three phases stated in the Executive Summary letter?
- R2** As indicated in the Request for Proposals (RFP) on Page 2 of the Executive Summary Letter, it is anticipated that the total estimated cost per award will be \$5 to \$15 million, inclusive of all three phases.
- Q3** Is DOE planning to have additional solicitations (similar to the ATS program) for phase III for those who respond to Phases I and II segments of this current solicitation? If yes, will there be another solicitation in the following years, and their approximate timing?
- R3** No additional solicitations are contemplated for Phase III. All three phases will be performed under this solicitation. The successful applicant(s) will be required to submit a continuation application for the second or subsequent budget period within an approved project period. Continuation applications address the Recipient's progress, planned conduct of the project in the subsequent budget period, and the estimated amount. DOE approval of a continuation application is usually contingent upon the Recipient's progress and the availability of funding. Please note that there is no "down-selection" anticipated as a result of a specific phase completion.
- Q4** On page 62 of the solicitation it is stated "The offerer must be a commercial producer of a major component of the proposed system or must team with commercial producers of the major components (defined as power producing units such as fuel cell, turbines, etc.)." Does this mean a gas turbine manufacturer can submit a proposal for Phase I and Phase II to design, develop and test a "fuel cell flexible gas turbine"? Under subsequent solicitations, such a gas turbine could be coupled with one or more of the high temperature fuel cells and tested in a proof of concept test mode as Phase III.
- R4** See response to Question No. 3. In addition, the gas turbine manufacturer must team with a commercial producer of another major component in order to complete a hybrid power system for proof of concept testing under Phase III.

Q5 On page 62 of the solicitation it is stated "While the goal of this solicitation is to produce systems with energy efficiencies greater than 70 percent, it is anticipated that the initial market entry systems, investigated under this solicitation, may have efficiencies less than this." Does DOE intend to pursue the hybrids proof of concept testing program later on by funding a larger system yielding higher efficiency, as a follow-up to this solicitation?

R5 There are no plans at this time for any follow-up to the current program solicitation.

Q6 If an offerer were to involve foreign entities in executing the scope of work specified in the contract, is there a percent of total work package content or other limitations imposed on involving such foreign entities?

R6 Section 2306 of the Energy Policy Act (EPA) imposes certain eligibility requirements on companies seeking financial assistance awards under Titles XX through XXIII of the EPA. In order for the DOE to make an award to companies that apply for financial assistance under a covered program, the Department must determine that the applicant's participation will be in the economic interest of the United States and the applicant is a United States-owned company. If the applicant is not a United States-owned company, the applicant must be incorporated or organized in the United States, and its parent company must be incorporated or organized in a foreign country that affords national treatment to United States-owned companies with regard to general investment opportunities; and affirms protection of intellectual property rights owned by United States-owned companies.

In making the determination, the Department may consider, as appropriate, individually the contributions of all companies participating in the project either as a joint venture, "team" arrangement, or lower tier subcontractor.

Please refer elsewhere in the amendment for additional clarification associated with the percentage of total work package involving foreign entities.

Q7 In Sections 6.5 and 6.9 of the solicitation, it is mentioned that the offeror can petition to DOE to initially start the project in Phase II. Is the petition a separate and standalone document or it is required to be a section of the proposal. In the latter case, in which section of the proposal (e.g. Technical Section, work plan) the petition is preferred?

R7 As stated in the solicitation, if the offeror petitions DOE to start the project in Phase II, the applicant's proposal still must address all three phases of the solicitation as part of Volume II -- TECHNICAL APPLICATION.

Q8 Section 6.9 specifies that if a petition to DOE to initially start the project in Phase II, the proposal still must address, all three phases of the application. Does this mean that the applicant still has to provide detailed proposed work plan, schedule, milestones, performance merits, critical path, budget, labor cost, etc, for Phase I even if the applicant submits a petition for Phase II start?

R8 The applicant must provide sufficient rational and supporting data to adequately prove that Phase I work has already been completed.

Q9 Section 6.5 (third line) specifies that the goal of this DOE solicitation is 75 percent efficient hybrid power system. However in section 6.7 and later in section 6.5 the goal of greater than 70 percent efficiency is mentioned. Since there is some implications in the project level of efforts and budget in

achieving the objectives, does a system efficiency of, for example, 72% satisfy the DOE's goal for this solicitation?

R9 In accordance with the solicitation objectives, and as stated in Paragraph 4 of Section 6.5, TECHNICAL SUMMARY,

“While the goal of this solicitation is to produce systems with energy efficiencies greater than 70 percent, it is anticipated that the initial market entry systems, investigated under this solicitation, may have efficiencies less than this.”

Q10 Will the Phases of the program run sequentially or will it be possible to begin Phase 2 prior to the end of Phase 1, and Phase 3 prior to the end of Phase 2? In terms of long-range procurement of materials and sales, some overlap would be beneficial in order to meet the schedule.

R10 The objective of the phases is sequentially. However, with Contracting Officer approval, Participants may be authorized to incur pre-award costs provided it is determined to be in the best interest of the Government or the Government may authorize long-range procurement of materials prior to the conclusion of a particular phase.

Q11 Ref. Section 6.9 General Technical Information (DEC 1999), (1) Technical Approach (Criterion 1), explain what is meant by the term "performance metrics" to be included in the work plan and schedule.

R11 Performance metrics are quantifiable events (i.e., completion of a test which achieved a pre-determined level of performance) that enable someone knowledgeable in the technology to determine if the work should continue. Metrics must be: Quantifiable, measurable, and achievable.

Q12 Ref. Section 6.9 General Technical Information (DEC 1999), (2) Understanding the Technology (Criterion 2), the applicant is requested to provide a list of "operational issues". Is the term "operational issues" synonymous with barriers?

R12 Yes, operational issues are one type of barrier.